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<p>(21) International Application Number: PCT/DK99/00481  (22) International Filing Date: 13 September 1999 (13.09.99)  (30) Priority Data: PA 1998 01164 15 September 1998 (15.09.98) DK 60/102,896 2 October 1998 (02.10.98) US  (71) Applicant (for all designated States except US): M &amp; E BIOTECH A/S [DK/DK]; Kogle Allé 6, DK-2970 Hør- sholm (DK).  (72) Inventors; and (75) Inventors/Applicants (for US only): HAAKJER, Torben [DK/DK]; Hestkøvej 11 E, DK-3460 Birkerød (DK). HAANING, Jesper [DK/DK]; Biskop Svanes Vej 2E, DK-3460 Birkerød (DK).  (74) Agent: KOEFOED, Peter; M &amp; E Biotech A/S, Kogle Allé 6, DK-2970 Hørsholm (DK).</p>		<p>(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), DM, EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b> <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p>
<p>(54) Title: METHOD FOR DOWN-REGULATING OSTEOPROTEGERIN LIGAND ACTIVITY</p> <p>(57) Abstract</p> <p>The invention provides a novel method for down-regulating the biological activity of osteoprotegerin ligand (OPGL, TRANCE) thereby rendering possible the treatment/amelioration of diseases characterized by excessive loss of bone mass, e.g. osteoporosis. Down-regulation is effected by inducing an immune response against OPGL in an individual in need thereof. Immune responses can be raised by classical immunization with immunogenic variants of OPGL or by nucleic acid immunization where the nucleic acids encode the OPGL variant. The invention also pertains to compositions, polypeptides and nucleic acids useful in the invention, as well as to vectors and transformed host cells useful in the preparation thereof.</p>		

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